

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

REC'D 31 MAY 2005

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Applicant's or agent's file reference 3FPO-10-13	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/KR2003/002654	International filing date (day/month/year) 04 DECEMBER 2003 (04.12.2003)	Priority date (day/month/year) 27 DECEMBER 2002 (27.12.2002)
International Patent Classification (IPC) or national classification and IPC IPC7 A61K 7/48		
Applicant HANKOOK PHARM. CO., INC. et al		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.



2. This REPORT consists of a total of 4 sheets, including this cover sheet.

☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of _____ sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 25 FEBRUARY 2004 (25.02.2004)	Date of completion of this report 29 APRIL 2005 (29.04.2005)
Name and mailing address of the IPEA/KR Korean Intellectual Property Office 920 Dunsan-dong, Seo-gu, Daejeon 302-701, Republic of Korea  Facsimile No. 82-42-472-7140	Authorized officer CHANG, Jin Ah Telephone No. 82-42-481-5602 

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/KR2003/002654

I. Basis of the report

1. With regard to the elements of the international application:*

- ☒ the international application as originally filed
- ☐ the description:
pages _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____
- ☐ the claims:
pages _____, as originally filed
pages _____, as amended (together with any statement) under Article 19
pages _____, filed with the demand
pages _____, filed with the letter of _____
- ☐ the drawings:
pages _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____
- ☐ the sequence listing part of the description:
pages _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

- These elements were available or furnished to this Authority in the following language English which is
- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☒ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets _____

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed." and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item I and annexed to this report.

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**1. Statement**

Novelty (N)	Claims	1-13	YES
	Claims		NO
Inventive step (IS)	Claims	1-13	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-13	YES
	Claims		NO

2. Citations and explanations (Rule 70.7)

The present invention of claims 1-13 relates to an extract of *Cercis chinensis* having activities of anti-oxidation, anti-skin aging etc., extracted by using water or alcohol aqueous solution as an extractant, and a cosmetic composition, a pharmaceutical composition and a preparation method.

1. THE PRIOR ART

The following international search report citation have been considered for the purpose of this report.

D1= "Isolation of the inhibitory constituents on melanin polymer formation from the leaves of *Cercis chinensis*", Saengyak Hakhoechi, Korea, 1999, Vol.30, No.4, pp.397-403

D1 shows the inhibition activity of leaves of *Cercis chinensis* against melanin formation.

D2= JP 08-175960 A (9 JULY 1996)

D2 relates to a stilbene derivative preventing skin wrinkles.

(Continued on Supplemental Sheet.)

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

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Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of:

Box. V

2. NOVELTY

The present invention is the same as D1 in providing *Cercis chinensis* extract. However, both inventions are different in that the present invention is for providing a cosmetically and pharmaceutically effective composition for anti-oxidation, anti-skin aging, and maintenance of skin resilience, whereas D1 is to provide a skin whitening cosmetic composition using inhibition activity of *Cercis chinensis* extract against melanin formation.

Though D2 is the same as the present invention in the purpose of providing an anti-wrinkle composition, D2 discloses a stilbene derivative of a different chemical structure from the present composition of formulas 1-20. Accordingly, the present invention and D2 differ in the technical feature.

Therefore, the subject matter of claims 1-13 in the present application is considered to be novel over the above citations [PCT Article 33(2)].

3. INVENTIVE STEP

The objective of the present invention is to provide *Cercis chinensis* extract having effects of inhibition activation against oxidative stress and expansion of skin life span.

Concerning the effect, as disclosed in example 2 about DPPH radical elimination activation, and example 3 about lipid peroxidation inhibition activation, the present extract exhibits a remarkably enhanced anti-oxidation effect than conventional anti-oxidation agents such as BHA or α -tocopherol. And example 9 about the effect of expanding telomere length and cell life span concretely shows that the shortening speed of telomere is retarded. These effects do not appear to be easily expected or derived from the prior art documents by a person skilled in the art.

Accordingly, claims 1-13 in the present application are considered to satisfy the inventive step [PCT Article 33(3)].

4. INDUSTRIAL APPLICABILITY

The subject matter of claims 1-13 meets the requirement of PCT Article 33(4).